



Marine National Facility Educator on Board Program

October 2018

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Educator on Board Program

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- The MNF Educator on Board program is a professional development program for Australian science, technology, engineering and mathematics (STEM) school teachers.
- The program provides berths for primary and secondary teachers to sail on board our state-of-the-art marine research vessel, *RV Investigator*, for short voyages.

Our concept

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1. Support teacher professional development by working with scientists on board RV *Investigator* voyages.
2. Demonstrate STEM applications in the real world, in the classroom and more broadly.
3. Enthuse students in STEM and support teachers to inspire careers in STEM.
4. Raise awareness amongst teachers of the role of the MNF and the importance and collaborative nature of marine research.
5. Promote the achievements of *Investigator* voyages through ship and shore-based outreach activities, including facilitating virtual experience of underway science.

Proof of concept

- Pilot Program January-March 2017.
- 51 days, Southern Ocean - remote, isolated, rough, challenging, daunting, uncomfortable etc.
- Sea-going experience prerequisite
- School holidays period
- Stuart Gifford, Tarooma High School (TAS)



What do the teachers do?

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- Work alongside scientists to assist, learn and contribute to the national collaborative marine research effort.
- Update their own STEM content knowledge.
- Conduct and coordinate educational and outreach activities including **live video broadcasts from the ship** to their class and other schools.
- Develop curriculum-linked resources to be shared with other Australian teachers (units, lesson plans etc).
- Promote RV *Investigator* and its research efforts through daily blog, contributions to CSIRO media and social media.
- Help run ship tours in port.

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Inaugural voyage

- IN2017_T01 Sept/Oct 2017
- Sydney to Broome
- 15 days

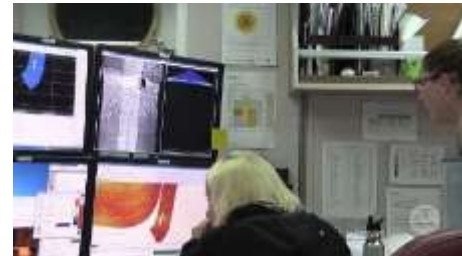
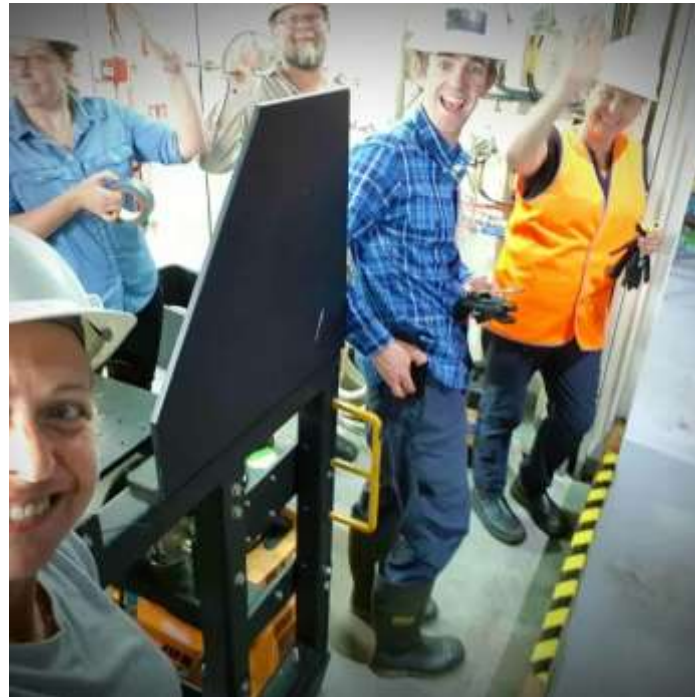
2 STEM teachers

- Chantelle Cook, WA (Primary)
- Chris Halverson, NSW (Secondary)



CSIRO Educator on Board Inaugural voyage

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Benefits and outcomes

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Teacher

- Learn/update content knowledge
- Facilitate real-world STEM in classroom
- Experience to draw on to inspire and inform students

Scientist

- Additional “hands on deck”
- Ideas/ perspectives on sharing and presenting research


CSIRO

- Wide promotion of *Investigator* & its research
- Next generation of researchers
- Production of STEM education resources
- Contribution to other CSIRO programs (eg. ALA)



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 **Atlas of Living Australia** 

26 September · 

For the next two weeks, the ALA will be bringing you tales from the high seas! While the RV Investigator sails from Sydney to Broome, we'll be showcasing native animals each day. Today's species is the Common Dolphin (*Delphinus delphis*). (Photo: Eric Woehler)

"We took this photo this afternoon, while these delightful dolphins were skipping alongside our ship.

If you look closely you can see some unfortunate octopus crammed into the beak of one lucky individual."



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 **Susie Stoodley** This would just have me mesmerised all day!

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Participant feedback

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"Working alongside scientists who are at the top of their field was priceless in my own development as a teacher."

"In terms of science, I've learned more in one week than I have in my whole life."

"I most enjoyed the interplay between the scientists – bouncing off each other. Science isn't an isolated event. It works best when it's combined. Seeing everyone swapping ideas, not putting any down, just expanding thought sequences. This is the first time, in a long time, I've actually seen that happen and I'm really impressed."

"I relished learning to live well and truly outside my comfort zone."

"Being immersed in ship life provided the perfect backdrop for producing rich lesson sequences."

CSIRO Educator on Board Established Program

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Transit voyages

- Approx. 2 weeks
- Around Australia
- 2 teachers per voyage
- Education team



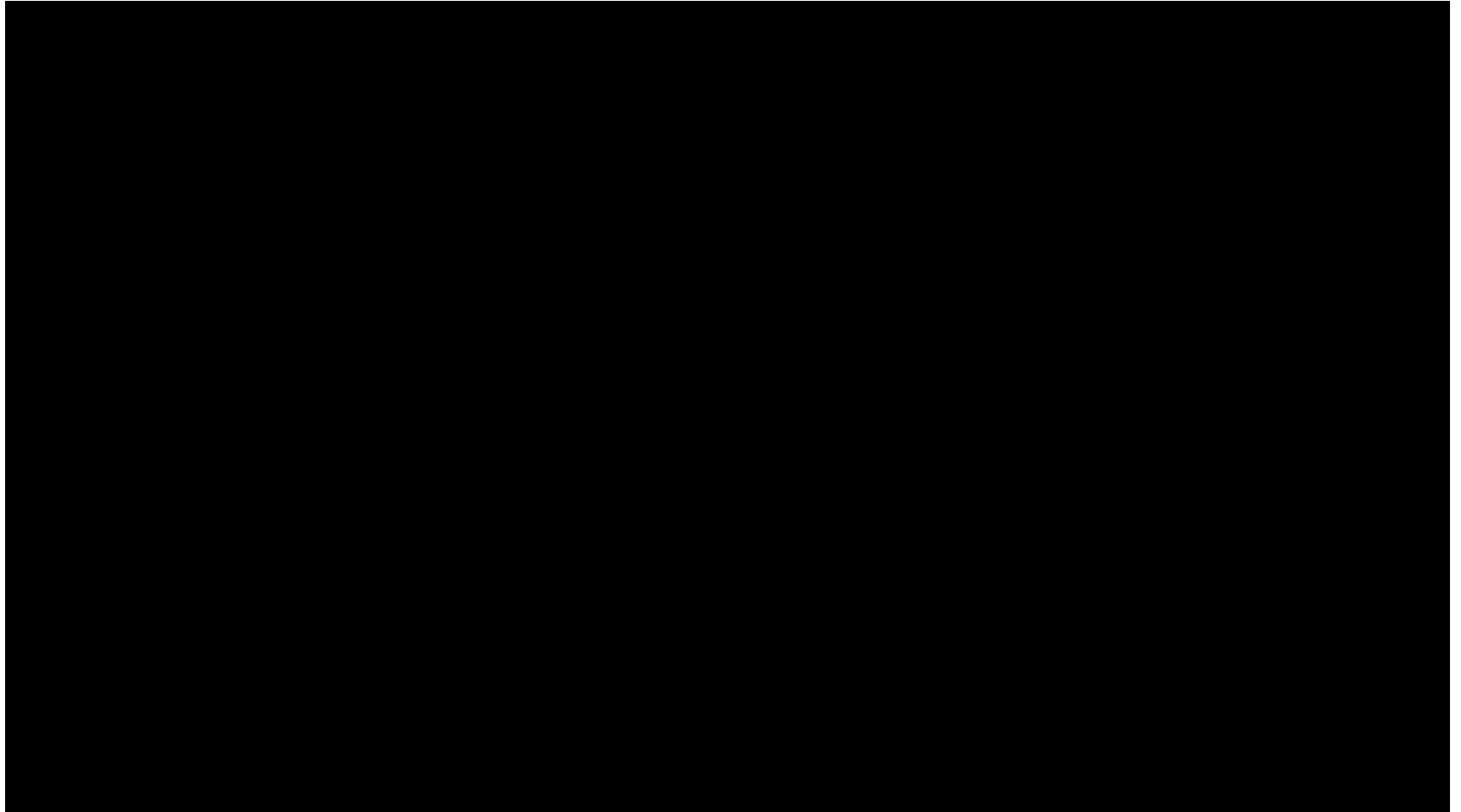
Owen Foley

Between Jan 2017 and Jun 2018:

- 8 teachers participated in 4 voyages

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Questions?

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